

dynasty when they might be expected. Four separate and distinct defensive systems have been differentiated, of which the earliest, belonging to the Early Bronze Age (c. 2500–2100 B.C.) rested on deposits of a still older period. The period of the city's greatest expansion was in the third phase (Middle Bronze Age II), which is marked by a cultural change. Under the Hyksos at that time, the city walls were much extended; and the character of the Palace and other buildings suggests that Jericho, as the residence of a Hyksos governor, had become a city of more than local importance. This phase comes to an end at about 1600 B.C. when the city was destroyed, presumably by the Pharaohs. It was rebuilt, but restricted within the bounds of the earlier area of occupation. From that time onward its history can be traced by means of scarabs and painted pottery having a range of dates between 1600 and 1400 B.C. At the latter date under Amenophis III the normal life of the city ceases abruptly. All the buildings of the Palace area and the few houses against the city wall bear witness to a great catastrophe—the indications are an earthquake—followed by an intense fire while the rooms were in occupation. Thenceforward until about 900 B.C. the site was practically deserted.

Sixth International Congress for Scientific Management

CONSIDERABLE progress is being made with the organisation of the Sixth International Congress for Scientific Management, which is to be held in London on July 15–18, 1935. A strong council which includes representatives of societies connected with various phases of scientific management has been formed. H.R.H. the Prince of Wales is the patron of the Conference and Government support has been promised. The chairman is Sir George Beharrell, managing director of Dunlops. The chairmen of the various committees are Dr. E. F. Armstrong (Organisation), Sir Henry Fowler (Technical) and Mr. G. R. Freeman (Finance). Mr. H. Ward, formerly general secretary of the National Institute of Industrial Psychology, has been appointed secretary. It is hoped that the Congress will demonstrate that British industry and British technicians are fully alive to the importance of scientific principles in management. Many highly skilled organisations exist, which are using and propagating these principles, but the Congress should help still further to stimulate the national movement in this direction and to create a general appreciation of the applications of management to organised industrial and commercial activity. Among the questions which will be discussed are: concrete examples of the application of scientific management to distribution problems in manufacturing, wholesaling and retailing; methods of controlling production; methods of selection, education and training of personnel suitable for high administrative positions; correct methods of inculcating modern management principles and practices in large-scale, medium and small undertakings, and the rôle of trade or other associations in this field.

Glass-Making

THE Friday evening discourse at the Royal Institution on December 8 was delivered by Major R. M. Weeks, a director of Messrs. Pilkington Brothers, Ltd., on "The Making of a Sheet of Glass". Major Weeks first gave a brief outline of some fundamental scientific considerations, with special reference to composition, the tendency to devitrify, and the resistance of the product to weathering. Melting is carried out by one of two processes, namely, the older method in which the raw materials are placed in pots in a gas-fired furnace, and the modern method by which the raw materials are introduced at one end of a continuous furnace and the molten glass withdrawn at the other. The various processes necessary for the manufacture of sheet and plate-glass were described in detail. Films were shown of the hand-blown and the machine-drawn cylinder sheet glass processes. The latter has been superseded by the flat-drawn process, in which the sheet is drawn in the form of a flat continuous ribbon. To illustrate the manufacture of plate glass, an interesting film of the Bicheroux casting process was shown and reference was made to the latest process of plate glass manufacture, the flow process, in which the molten glass is delivered to rollers which form a continuous ribbon of glass. In the modern continuous grinding and polishing machine the glass plates, laid on a moving bed, pass successively under the grinding and polishing machines. The discourse concluded with a description of two novel forms of flat glass of interest, namely, opaque glass manufactured in black, white and various colours and known as vitrolite; and toughened glass, known as 'armour-plate' or 'triplex toughened', which has a high resistance to fracture combined with the property, if broken, of shattering into small harmless fragments.

India and Displaced German Scientific Workers

ALTHOUGH the creation of special posts and the raising of supplementary funds for research work have alleviated in some degree the difficulties attendant on the absorption of displaced German Jewish teachers and students, these measures have not been adequate to provide for all, or to meet all contingencies. In India, where the appeal on behalf of the displaced workers has met with a sympathetic reception in certain quarters, the posts which might be made available are extremely limited in number, and in the matter of academic and research appointments, India has its own special difficulties which militate against even limited assistance. In each year India produces a relatively large number of men trained in science, including many with qualifications obtained in Europe. In present conditions these find difficulty in obtaining appointments in India. In an interview with Acharya Roy, which appears in the *Amrita Bazar Patrika* of November 14, relating to the appeal on behalf of Jewish men of science, reference is made to the virtual monopoly enjoyed by Europeans in posts for scientific research in India, against which Indian research students have made way only very slowly in the last fifteen years. Acharya Roy points